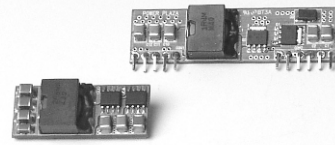


SNS10A

Non-isolated DC/DC POL converter

Total output current **10 A**
Input voltages **5V, 12V**
#of outputs **Single output**



SPECIAL FEATURES

- Delivers 10A of output Current
- High efficiency
- Low Output Ripple & Noise
- Small size and low profile 50.8mm × 13.97mm × 8.64mm (SIP package)
- Cost-efficient open frame design
- Single - in - line (SIP) & SMT package
- Remote ON/OFF
- Remote sense
- Trimmable output voltage via external resistor
- Output Over current protection
- Over temperature protection
- Wide Operating temperature range -40 ~85

ELECTRICAL SPECIFICATIONS

SNS 10A - 5 SIP Packages

- Efficiency 96% @ 3.3V
- Input voltage range 3.0V - 5.5V
- Output voltage 1.0V - 3.3V
- Voltage tolerance ± 2.0%
- Line regulation ± 0.3%
- Load regulation ± 0.4%
- Switching frequency 300KHz
- *Ripple & noise 30mVp-p (@3.3V)
- MTBF (MIL-HDBK-217F) 8.0×10^5 hrs

SNS 10A - 12 SIP Packages

- Efficiency 95% @ 5.0V
- Input voltage range 10.0V - 14.0V
- Output voltage 1.0V - 5.0V
- Voltage tolerance ± 2.0%
- Line regulation ± 0.3%
- Load regulation ± 0.4%
- Switching frequency 300KHz
- *Ripple & noise 50mVp-p (@5V)
- MTBF (MIL-HDBK-217F) 7.6×10^5 hrs

* Ripple & noise is tested / specified over a 20MHz bandwidth and may be reduced with external filtering.

Ordering Information

| Input | Output | Maximum Power | Ripple & Noise max | Efficiency Typ. | Model Number |
|----------|----------|---------------|--------------------|-----------------|----------------------|
| 3.0-5.5V | 1.0V@10A | 10.0W | 30mVp-p | 87% | SNS10A-5-1R0 |
| 3.0-5.5V | 1.5V@10A | 15.0W | 30mVp-p | 91% | SNS10A-5-1R5 |
| 3.0-5.5V | 1.8V@10A | 18.0W | 30mVp-p | 92% | SNS10A-5-1R8 |
| 3.0-5.5V | 2.0V@10A | 20.0W | 30mVp-p | 93% | SNS10A-5-2R0 |
| 3.0-5.5V | 2.5V@10A | 25.0W | 30mVp-p | 94% | SNS10A-5-2R5 |
| 4.5-5.5V | 3.3V@10A | 33.0W | 30mVp-p | 96% | SNS10A-5-3R3 |
| 10-14V | 1.0V@10A | 10.0W | 50mVp-p | 83% | SNS10A-12-1R0 |
| 10-14V | 1.5V@10A | 15.0W | 50mVp-p | 85% | SNS10A-12-1R5 |
| 10-14V | 1.8V@10A | 18.0W | 50mVp-p | 89% | SNS10A-12-1R8 |
| 10-14V | 2.5V@10A | 25.0W | 50mVp-p | 92% | SNS10A-12-2R5 |
| 10-14V | 3.3V@10A | 33.0W | 50mVp-p | 93% | SNS10A-12-3R3 |
| 10-14V | 5.0V@10A | 50.0W | 50mVp-p | 95% | SNS10A-12-5R0 |

1. Typical at $T_a = +25$ under nominal line voltage and full load conditions, unless otherwise noted. All models are tested and specified with external input and output capacitors. ($C_{in}=100\mu F \times 2$ $C_{out}=10\mu F$), These capacitors are necessary to accommodate Our test equipment
2. Ripple & Noise is tested / specified over a 20MHz bandwidth and may be reduced with external filtering. See I/O Filtering
3. These device have no minimum-load requirement and will regulate Under no-load conditions. Regulation specification describe the output voltage deviation as the line voltage or load is varied from its minimum value to either extreme.

Pin assignment

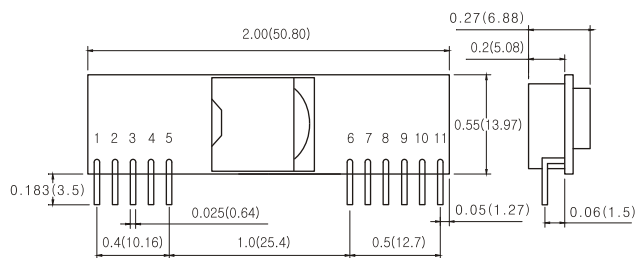
Single Output (SIP)

1. +Vout
2. +Vout
3. Sense
4. +Vout
5. COM
6. COM
7. +Vin
8. +Vin
9. No Pin
10. TRIM
11. ON/OFF

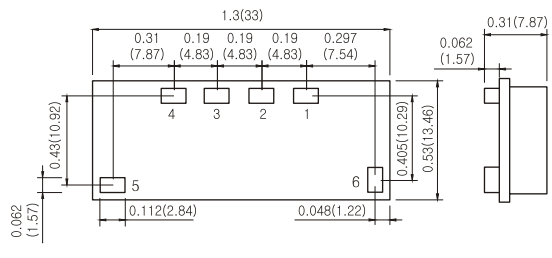
Single Output (SMT)

1. Sense
2. Trim
3. +Vout
4. COM
5. +Vin
6. ON/OFF

Dimensions



<SIP TYPE>



<SMT TYPE>

NOTES

1. All dimensions are in inches (mm)
2. Weight : 7.8g or less (SIP)
5.6g or less (SMT)